2815

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Application Number	09/740,584
Filing Date	12-18-2000
First Named Inventor	Jeffrey M. Alden
Group Art Unit	2815
Examiner Name	Chris C. Chu
Total Number of Pages in This Submission	
Attorney Docket Number	GP-301022

ENCLOSURES *(check all that apply)*

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  - ☐ After Final
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm *or* Individual name	John A. Miller, Reg. No. 34,985.
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	09/740,584
Filing Date:	December 18, 2000
Applicant:	Jeffrey Morgan Alden, et al.
Group Art Unit:	2815
Examiner:	Chris C. Chu
Title:	AUTOMATIC RECONFIGURATION OF SYSTEM SUB-MODELS FOR INDEPENDENT ANALYSIS
Attorney Docket:	GP-301022 (GMC-00048)

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PETITION FOR REVIEW OF REQUIREMENT FOR RESTRICTION

Sir:

Pursuant to 37 C.F.R. 1.144, Applicant hereby petitions for review of the Requirement for Restriction to have all of the originally filed claims examined together. It is believed that no fee is required for this Petition. However, if a fee is required, the Commissioner is hereby authorized to charge the required fee to Deposit Account number 501612. A duplicate copy of this Petition is provided for this purpose.

The Examiner's Requirement for Restriction identified five patentably distinct species, including i) species I depicted in figure 2; ii) species II depicted in figure 3; iii) species III depicted in figure 5; iv) species IV depicted in figure 6;

and v) species V depicted in figure 10. The Examiner required Applicant to elect a single species for prosecution on the merits, and a listing of all claims readable on that species. Applicant elected species III shown in figure 5 with traverse, requested reconsideration, and submitted that all of the original claims 1-19 read on this species in a Response to Restriction Requirement mailed February 12, 2003.

The Examiner responded to Applicant's Response and request for reconsideration in her Office Action mailed May 8, 2003, stating that all of the independent claims 1, 8 and 13 do not read on species III and making the Requirement for Restriction final. The Examiner withdrew claims 2, 7-12, 14 and 19 from consideration, and examined the remaining originally filed claims.

Applicant's specification describes three separate inventions or embodiments. A first embodiment is discussed on pages 6-11 of the specification, with reference to figures 2-4. Figure 2 is an influence diagram including a plurality of entities that combine to form a model. Figure 4 is the influence diagram shown in figure 2 after a change to the diagram has been made based on a certain input. Figure 3 is a flow chart diagram showing the steps of visualizing complex system interactions in a model illustrated in an influence diagram. The flow chart includes steps for constructing the influence diagram shown in figure 2, and steps for changing the influence diagram shown in figure 2 to the influence diagram shown in figure 4 based on the input.

A second embodiment disclosed in the specification, and described on pages 11-13, is directed to analyzing a sub-model of a full system model. Figure 5 is a sub-model influence diagram of the full model influence diagram shown in

figure 2, and figure 6 is a flow chart diagram showing the steps of this embodiment for analyzing the sub-model shown in figure 5. Figure 7 is a sub-model influence diagram of the sub-model influence diagram shown in figure 5 after a change has been made as included in the steps of the flow chart diagram of figure 6.

Figures 8-11, described in the specification on pages 14-17, shows a third embodiment that creates and automatically maintains an equivalence between a spreadsheet and a functional visual representation of the spreadsheet, where the visual representation may be an influence diagram.

Independent claims 1 and 8 are directed to a method of analyzing a sub-model of a full system model, and independent claim 13 is a system for analyzing a sub-model separated from a full system model. All three of these independent claims are directed to the second embodiment discussed above for figures 5-7. Applicant has not claimed the invention of the first embodiment shown in figures 2-4 or the invention of the third embodiment shown in figures 8-11. Independent claims 1 and 8 include the same method steps, except that independent claim 8 includes the additional steps of "deleting connecting arcs directed to the temporary entities" and "identifying isolated cycles in the sub-model that are a series of entities that depend on themselves."

These additional steps in independent claim 8 are also included as dependent claims that depend from independent claim 1. All of the steps of method claims 1-12 are included in the flow chart diagram shown in figure 6 and described in the specification, which depicts steps that can be employed to change the sub-model shown in figure 5 to the sub-model shown in figure 7.

Applicant submits that figures 5 and 6 cannot be properly characterized as separate species, and independent claims 1, 8 and 13 can read on both figures 5 and 6.

The Examiner has suggested that the step in independent claim 8 of "deleting connecting arcs directed to the temporary data entities" belongs in another embodiment. However, the Examiner has not given any reason as to why this is the case. The step of deleting connecting arcs is sometimes required when the sub-model influence diagram is separated from the full model influence diagram because those entities in the sub-model that are converted to temporary data entities may have depended on other entities in the full model that are not in the sub-model influence diagram. This is one novel step in the overall invention of analyzing a sub-model of a full system model claimed by Applicant. This step is not part of a separate embodiment, but is a step in the same embodiment that may or may not be required. The connecting arcs directed to the temporary data entities are not shown in figures 5 and 7 because they have been deleted, as characterized by box 80 in figure 6.

The Examiner has also suggested that the step in dependent claims 7 and 19 of "adding all global variables to a sub-model" belongs in another embodiment. The Examiner has also failed to give a reason as to why this is the case. The step of adding all global variables to the sub-model is shown in the step of box 76 in figure 6. This step includes adding those values in the sub-model that are not specifically shown as inputs to the full system model, but are also used in the sub-model. This is another novel step in the overall invention of

analyzing a sub-model of a full system model that may or not be required in the process.

Applicant respectfully submits that they are not required to claim all of the steps in the process of the invention in any one claim, and the invention of independent claims 1, 8 and 13 is shown in the specification by the combination of figures 5-7.

In view of the foregoing, it is respectfully requested that the restriction requirement be withdrawn, and all the claims be examined together.

Respectfully submitted,

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